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09/048,026 03/26/98 UCHINO

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EXAMINER

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ART UNIT

PAPER NUMBER

2776

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**09/048,026**

Applicant(s)  
**Uchino et al.**

Examiner  
**Cesar B. Paula**

Group Art Unit  
**2776**



☒ Responsive to communication(s) filed on Mar 26, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claim

☒ Claim(s) 1-31 is/are pending in the applicat

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-31 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☒ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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### **DETAILED ACTION**

1. This action is responsive to the application, and IDS filed on 3/26/98.

**This action is made non-final.**

2. Claims 1-31 are pending in the case. Claims 1, 3, 8-9, 11, 16-19 and 30-31 are independent claims.

#### ***Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Drawings***

4. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

#### ***Specification***

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: FORUM/MESSAGE BOARD RELEVANT DOCUMENT DISPLAY.

#### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Numata (Pat. # 5,943,669, 8/24/1999, filed on 11/21/1997) in view of Takano (Pat. # 5,940,831, 8/17/1999, filed on 8/22/1997).

Regarding independent claim 1, Numata discloses "classification section 8 classifies the documents into one or more categories based on the degree of similarity among the composite vectors ..... " (Col. 6, lines 9-24). Numata fails to explicitly disclose *a document group analysis device for classifying a plurality of documents forming a set of documents into one or more group of documents to be cross-referenced* ..... However, Takano discloses "a hypermedia system..... The location of these contents are uniquely determined by..... URL. The relation between nodes is described by tracking the URL..... " (Col. 1, lines 18-60). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Numata and Takano, because Takano discloses ".....a technology to make the process of navigation more effective by recognizing the content of the content files and the status of their relations in such a way directory servers can manage node data ..... " (Col. 1, lines 51-60).

Moreover, Numata discloses *a document group keyword extraction device for extracting a keyword contained in a document* ..... -- "the four documents.....can be classified into two categories....based on the degree of joint-ownership of the keywords..... " (Col. 2, lines 6-19). In the preceding quote, Numata teaches classifying documents extracting keywords.

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Furthermore, Numata discloses “document extraction selects an element from the categories that were classified with classification section 8, and displays it on the display section.....” (Col. 6, lines 26-37). Numata fails to explicitly disclose *a document group keyword device for displaying a title relevant to each group of documents* ..... However, it would have been obvious to a person of ordinary skill in the art at the time of the invention to had performed this function, because Numata teaches selecting an “element” such as *title relevant to each group of documents* and displaying on the screen.

Regarding claim 2, which depends on claim 1, Numata discloses *The apparatus wherein said document group keyword device displays with enhancement a group of documents* .....-- “the four documents...can be classified into two categories .....” (Col. 2, lines 6-20). In the preceding quote, Numata teaches the display of the classification of 4 documents as to set the classification groups apart-- *displays with enhancement a group of documents*.

Regarding independent claim 3, Numata discloses “classification section 8 classifies the documents into one or more categories based on the degree of similarity among the composite vectors .....” (Col. 6, lines 9-24). Numata fails to explicitly disclose *a document group analysis device for classifying a plurality of documents forming a set of documents into one or more group of documents to be cross-referenced* ..... However, Takano discloses “a hypermedia system.....The location of these contents are uniquely determined by..... URL. The relation between nodes is described by tracking the URL.....” (Col. 1, lines 18-60). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Numata and Takano, because Takano discloses “.....a

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technology to make the process of navigation more effective by recognizing the content of the content files and the status of their relations in such a way directory servers can manage node data .....” (Col. 1, lines 51-60).

Moreover, Numata discloses “classification section 8 classifies the documents into one or more categories based on the degree of similarity among the composite vectors .....” (Col. 6, lines 9-24). Numata fails to explicitly disclose *a document attribute analysis device for extracting document attribute information* ..... However, Takano discloses “....one or more servers storing the node data and its link data.....node data obtained from the server .....” (Col. 2, lines 33-46). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Numata and Takano, because Takano discloses “.....a technology to make the process of navigation more effective by recognizing the content of the content files and the status of their relations in such a way directory servers can manage node data .....” (Col. 1, lines 51-60).

Furthermore, Numata discloses “document extraction section 12 selects an element from the categories that were classified.....displays it on display section .....” (Col. 6, lines 26-37). Numata fails to explicitly disclose *a document group structure display device for displaying cross-references in each group of documents* ..... However, Takano discloses “a hypermedia system.....The location of these contents are uniquely determined by..... URL. The relation between nodes is described by tracking the URL.....” (Col. 1, lines 18-60). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Numata and Takano, because Takano discloses “.....a technology to make the

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process of navigation more effective by recognizing the content of the content files and the status of their relations in such a way directory servers can manage node data .....” (Col. 1, lines 51-60).

Regarding claim 4, which depends on claim 3, Numata discloses “classification section 8 classifies the documents into one or more categories based on the degree of similarity among the composite vectors .....” (Col. 6, lines 9-24). Numata fails to explicitly *The apparatus....displays the cross-references in each group of documents in a tree structure .....* However, Takano discloses “A hypermedia system.....The location of these contents are uniquely determined by..... URL. The relation between nodes is described by tracking the URL.....” (Col. 1, lines 18-60). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Numata and Takano, because Takano discloses “.....a technology to make the process of navigation more effective by recognizing the content of the content files and the status of their relations in such a way directory servers can manage node data .....” (Col. 1, lines 51-60).

Regarding claim 5, which depends on claim 3, Numata discloses *The apparatus.....said document group structure display device further displays a plurality of topics.....* -- “FIG. 14 is a classification tale that illustrates the results which manually classify the documents in the experimental set.....” (Col. 15, lines 53-65). In the preceding quote, Numata teaches the display of *a plurality of topics* of the classified documents.

Regarding claim 6, which depends on claim 5, Numata discloses *The apparatus.....said document group structure display device displays each topic and a relevant node .....* -- “FIG. 14

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is a classification tale that illustrates the results which manually classify the documents in the experimental set.....” (Col. 15, lines 53-65). In the preceding quote, Numata teaches the display of *a plurality of topics* of the classified documents.

Regarding claim 7, which depends on claim 3, Numata discloses “document extraction section 12 selects an element from the categories that were classified.....displays it on display section .....” (Col. 6, lines 26-37). Numata fails to explicitly disclose *The apparatus.....said document group structure display device displays with enhancement a node corresponding to a document* ..... However, Takano discloses “a hypermedia system.....The location of these contents are uniquely determined by..... URL. The relation between nodes is described by tracking the URL.....” (Col. 1, lines 18-42). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Numata and Takano, because Takano discloses “.....a technology to make the process of navigation more effective by recognizing the content of the content files and the status of their relations in such a way directory servers can manage node data .....” (Col. 1, lines 51-60).

Regarding independent claim 8, Numata discloses “classification section 8 classifies the documents into one or more categories based on the degree of similarity among the composite vectors .....” (Col. 6, lines 9-24). Numata fails to explicitly disclose *a document group analysis device for classifying a plurality of documents forming a set of documents into one or more group of documents to be cross-referenced* ..... However, Takano discloses “a hypermedia system.....The location of these contents are uniquely determined by..... URL. The relation between nodes is described by tracking the URL.....” (Col. 1, lines 18-60). It



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would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Numata and Takano, because Takano discloses “.....a technology to make the process of navigation more effective by recognizing the content of the content files and the status of their relations in such a way directory servers can manage node data .....” (Col. 1, lines 51-60).

Moreover, Numata discloses *a topic analysis device for further classifying each of the classified group of documents based on topics extracted from each document* .....--

“Reclassification indication section 11 selects the categories which are to be reclassified.....” (Col. 6, lines 20-24). In the preceding quote, Numata teaches the reclassification of documents according to their contents or *topics extracted from each document*.

Moreover, Numata discloses *a topic keyword extraction device* .....--“the heading vector generation section 5 extracts key words from the headings of all of the structural elements.....” (Col. 5, lines 60-64). In the preceding quote, Numata teaches the extraction of key words for the classification of documents

Furthermore, Numata discloses *a topic keyword display device for displaying* .....*a relevant title and a keyword extracted* .....-- “display section 10 displays the categories resulted from the classification.....” (Col. 6, lines 16-24). In the preceding quote, Numata teaches the display of *topic keywords* from the document retrieval results.

Claims 9-11, 12, 13-18 are directed towards a relevant document display method for implementing the apparatus found in claim 1-3, 4-8, 1, and 3 respectively, and are, similarly rejected.

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8. Claim 19, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Numata, in view of Shima et al (Pat. # 5,835,922, 11/10/1998, filed on 9/29/1997).

Regarding independent claim 19, Numata discloses "classification section 8 classifies the documents into one or more categories based on the degree of similarity among the composite vectors ..... " (Col. 6, lines 9-24). Numata fails to explicitly disclose *contents estimation means for estimating contents.....patterns of opinion input by authors .....* However, Shima et al disclose ".....the contents of the received document are arranged in an order in which the writer has written elements of the document ..... " (Col. 1, lines 53-65). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Numata and Shima et al, because Numata teaches in the preceding quote the classification and indexing of topic extracted from documents such as those input by the authors disclosed by Shima et al-- *patterns of opinion input by authors*.

Moreover, Numata discloses *a topic analysis device for further classifying each of the classified group of documents based on topics extracted from each document .....*-- "reclassification indication section 11 selects the categories which are to be reclassified....." (Col. 6, lines 20-24). In the preceding quote, Numata teaches a section for the reclassification of documents based on the contents or *topics extracted from each document*.

Moreover, Numata discloses *input means for inputting a retrieval request corresponding.....*-- "some systems extract key words from documents and automatically perform the retrieval of documents. Using....the document and the query....." (Col. 1,

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lines 20-24). In the preceding quote, Numata teaches the input of a query to generate the retrieval of documents.

Moreover, Numata discloses *retrieval engine means for retrieving a document in the document database*-- “the document retrieval device comprises .....a document extraction section.....” (Col. 5, lines 30-41). In the preceding quote, Numata teaches a retrieval device for retrieving documents from a database.

Furthermore, Numata discloses *view generation means for generating one or more views*.....-- “document extraction section 12 selects an element from the categories that were classified.....and displays it on display section.....” (Col. 6, lines 25-37). In the preceding quote, Numata teaches a section to generate the display of document views.

Regarding claim 28, which depends on claim 19, Numata discloses “classification section 8 classifies the documents into one or more categories based on the degree of similarity among the composite vectors .....” (Col. 6, lines 9-24). Numata fails to explicitly disclose *said view generation means allows a user to easily understand reference....from an author’s viewpoint* ..... However, Shima et al disclose “.....the contents of the received document are arranged in an order in which the writer has written elements of the document .....” (Col. 1, lines 53-65). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Numata and Shima et al, because Numata teaches in the preceding quote the classification and indexing of topic extracted from documents such as those input by the authors disclosed by Shima et al-- *from an author’s viewpoint*.

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Regarding claim 29, which depends on claim 19, Numata discloses “documents may be retrieved based on their degree of similarity to the query, indicative of the quality of the document search.” (Col. 3, lines 65-67). Numata fails to explicitly disclose *The apparatus....document stored in the document database is a message.....* However, it would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Numata, and Shima et al, because Numata teaches in the preceding quote the retrieval of documents such as *network news*.

Claim 30 is directed towards a method of displaying a relevant document for implementing the apparatus found in claim 19, and is similarly rejected.

Claim 31 is directed towards a computer-readable storage medium for storing the apparatus found in claim 19, and is similarly rejected.

9. Claims 20-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Numata in view of Shima et al as applied to claim 19 above, and further in view of Takano.

Regarding claim 20, which depends on claim 19, Numata discloses “document extraction section 12 selects an element from the categories that were classified.....and displays it on display section.....” (Col. 6, lines 25-37). Numata fails to explicitly disclose *The apparatus....view generation means allows a user to easily understand an entire structure of reference.....* However, Takano discloses “.....a technology to make the process of navigation more effective by recognizing the content of the content files and the status of their relations .....” (Col. 1, lines 51-60). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Numata, Shima et al, and Takano,

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because Takano discloses “.....a technology to make the process of navigation more effective by recognizing the content of the content files and the status of their relations in such a way directory servers can manage node data .....” (Col. 1, lines 51-60).

Regarding claim 21, which depends on claim 19, Numata discloses “document extraction section 12 selects an element from the categories that were classified.....and displays it on display section.....” (Col. 6, lines 25-37). Numata fails to explicitly disclose *The apparatus....view generation means allows a user to easily understand an entire structure of reference...by simply displaying a reference tree structure of displayed documents.....*

However, Takano discloses “.....FIG. 13.....Each of WWW servers.....stores several content files as nodes in hypertext .....” (Col. 1, lines 28-36). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings Numata, Shima et al, and Takano, because Takano discloses “.....a technology to make the process of navigation more effective by recognizing the content of the content files and the status of their relations in such a way directory servers can manage node data .....” (Col. 1, lines 51-60).

Regarding claim 22, which depends on claim 19, Numata discloses “document extraction section 12 selects an element from the categories that were classified.....and displays it on display section.....” (Col. 6, lines 25-37). Numata fails to explicitly disclose *The apparatus....view generation means allows a user to easily understand an entire structure of reference...by simply displaying a reference tree structure of displayed documents.....*

However, Takano discloses “.....a technology to make the process of navigation more effective by recognizing the content of the content files and the status of their relation .....” (Col. 1,

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lines 51-60). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Numata and Takano, because Takano discloses “.....a technology to make the process of navigation more effective by recognizing the content of the content files and the status of their relations in such a way directory servers can manage node data .....” (Col. 1, lines 51-60).

Regarding claim 23, which depends on claim 19, Numata discloses “document extraction section 12 selects an element from the categories that were classified.....and displays it on display section.....” (Col. 6, lines 25-37). Numata fails to explicitly disclose *The apparatus....view generation means allows a user to easily understand an entire structure of reference.....* However, Takano discloses “.....a technology to make the process of navigation more effective by recognizing the content of the content files and the status of their relations .....” (Col. 1, lines 51-60). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Numata, Shima et al, and Takano, because Takano discloses “.....a technology to make the process of navigation more effective by recognizing the content of the content files and the status of their relations in such a way directory servers can manage node data .....” (Col. 1, lines 51-60).

Regarding claim 24, which depends on claim 19, “documents may be retrieved based on their degree of similarity to the query, indicative of the quality of the document search.” (Col. 3, lines 65-67). Numata fails to explicitly disclose *The apparatus....view generation means allows a user to easily.....document database related to time information by displaying in a calendar format.....* It would have been obvious to a person of ordinary skill in the art at the time of the

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invention to had combined the teachings of Numata, Shima et al, and Takano, because Numata discloses in the preceding quote, the retrieval of documents based on the degree of similarity such as the similarity of a time frame.

Regarding claim 25, which depends on claim 19, Numata discloses “document extraction section 12 selects an element from the categories that were classified.....and displays it on display section.....” (Col. 6, lines 25-37). Numata fails to explicitly disclose *The apparatus....view generation means allows a user to easily understand an entire structure of reference...by simply displaying a reference tree structure of displayed documents.....* However, Takano discloses “.....a technology to make the process of navigation more effective by recognizing the content of the content files and the status of their relation .....” (Col. 1, lines 51-60). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Numata, Shima et al, and Takano, because Takano discloses “.....a technology to make the process of navigation more effective by recognizing the content of the content files and the status of their relations in such a way directory servers can manage node data .....” (Col. 1, lines 51-60).

Regarding claim 26, which depends on claim 19, Numata discloses “documents may be retrieved based on their degree of similarity to the query, indicative of the quality of the document search.” (Col. 3, lines 65-67). Numata fails to explicitly disclose *The apparatus....view generation means allows a user to easily understand an entire structure of reference...by simply displaying a reference tree structure of displayed documents....retrieve only a document corresponding to a question and answer in a specified topic pattern.....* However, it would have

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been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Numata, Shima et al, and Takano, because Numata teaches in the preceding quote the retrieval of document through the means of a query—*question and answer*.

Regarding claim 27, which depends on claim 19, Numata discloses “document extraction section 12 selects an element from the categories that were classified.....and displays it on display section.....” (Col. 6, lines 25-37). Numata fails to explicitly disclose *The apparatus....view generation means allows a user to easily understand an entire structure of reference...by simply displaying a reference tree structure of displayed documents....displaying at high intensity level a specified topic....* However, Takano discloses “.....a technology to make the process of navigation more effective by recognizing the content of the content files and the status of their relation .....” (Col. 1, lines 51-60). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Numata, Shima et al, and Takano, because Takano discloses “.....a technology to make the process of navigation more effective by recognizing the content of the content files and the status of their relations in such a way directory servers can manage node data .....” (Col. 1, lines 51-60).

### ***Conclusion***

I. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ochitani (Pat. # 5,940,830), Punch, III et al. (Pat. # 5,924,105), Ueda (Pat. # 5,586,239), Wical (Pat. # 5,768,580), Rubistein et al. (Pat. # 5,913,215), Serafin (Pat. # 5,987,472), Van Hoff (Pat. # 5,822,539), Anthony (Pat. # 5,815,830), Tabb et al. (Pat. #



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5,787,416), Dyko et al. (Pat. # 5,956,708), Ebrahim (Pat. # 5,970,505), and Uomini (Pat. # 5,819,269).


II. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cesar B. Paula whose telephone number is (703) 306-5543. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:00 p.m. (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi, can be reached on (703) 305-4713. However, in such a case, please allow at least one business day. The formal and informal fax phone numbers for this Group are (703) 308-9051 and 308-5403 respectively.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

cbp

01/24/00

  
STEPHEN S. HONG  
PRIMARY EXAMINER